AUTOMATIC MEDIA REPAIR AFTER READ FAILURE DUE TO MEDIA ERROR Abstract of the Invention

A system and method are provided for a storage device that performs automatic media repair so that, after a media error is encountered, subsequent write operations are completed on a known good sector while read operations from the repaired sector are induced to fail so that the user never receives corrupted or indeterminate data. Recovery of the error is accomplished by restoring the damaged file, without resorting to the restoration of the complete media volume. Consequently, recovery from media error is accomplished in less time, and affects only the working processes that use the affected file, rather than the system as a whole.